Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P633516

Luminaire Tested: GWS-SA2E-830-U-RW-W-GRSBK

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P633516
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-50)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA2E-830-U-RW-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(32) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7512.4 lumens
Efficiency:	N/A
Efficacy:	69.4 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B3 - U0 - G0

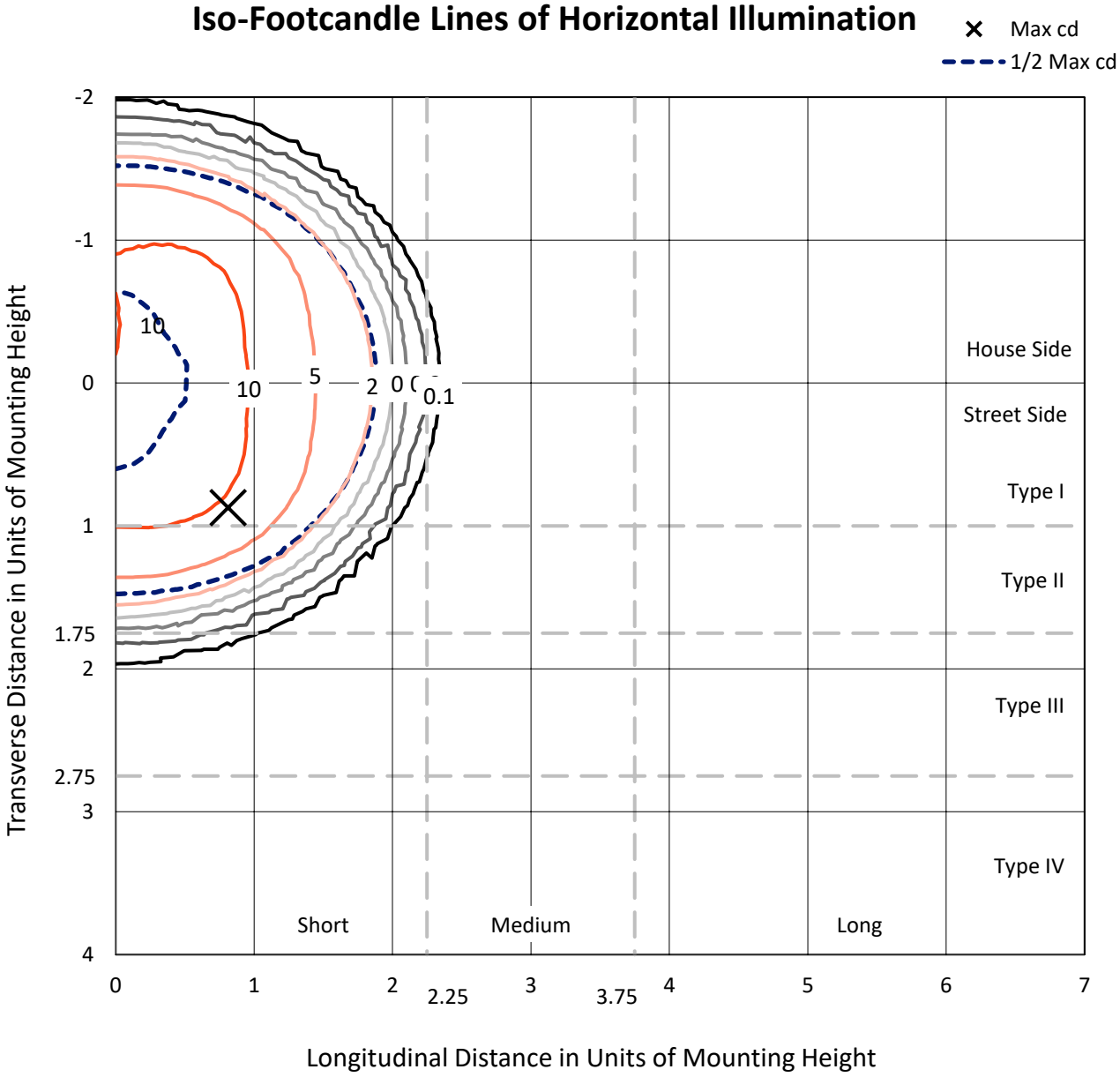
Input Watts (W):	108.2
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P633516
CATALOG NUMBER: GWS-SA2E-830-U-RW-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



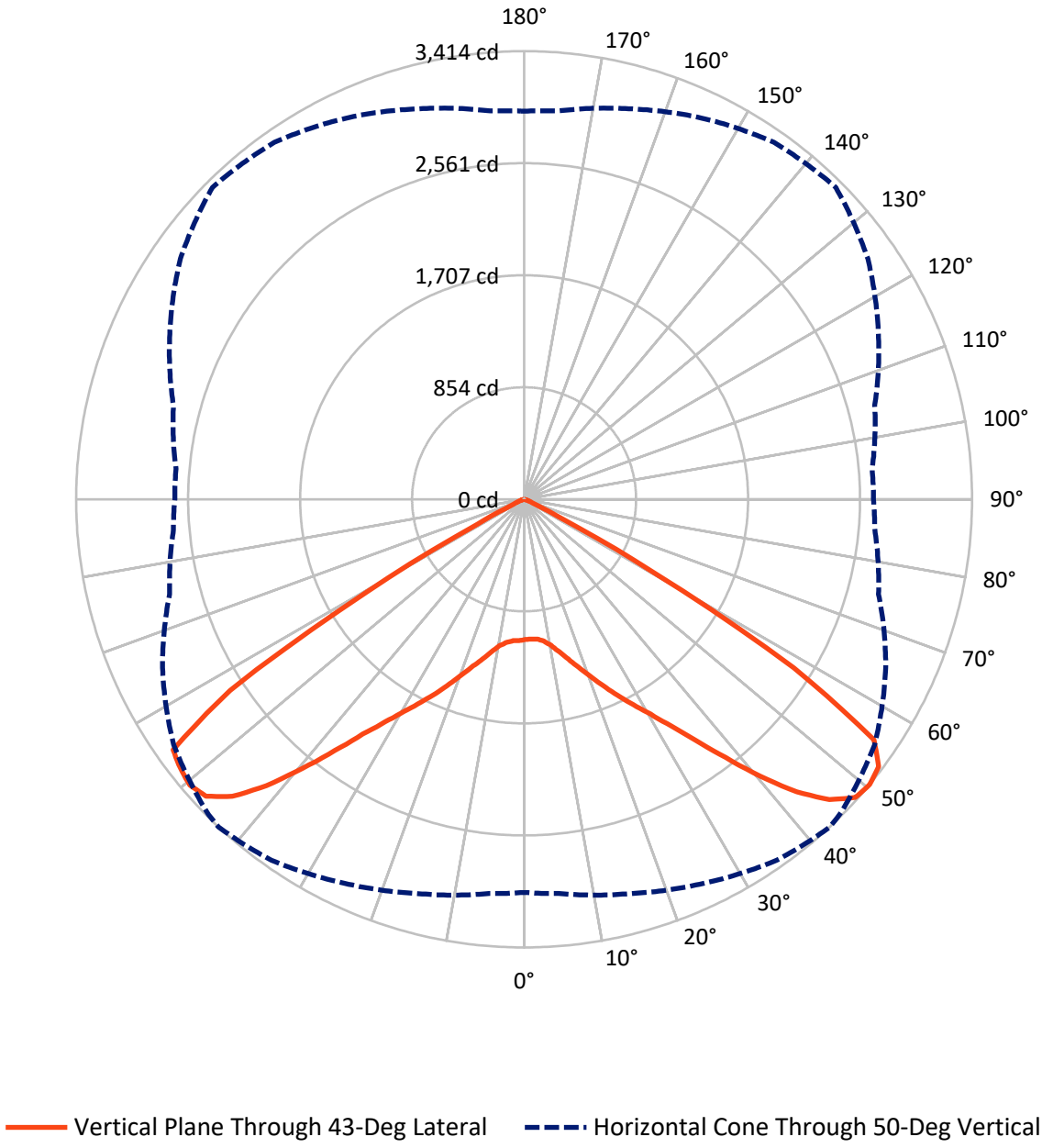
Based on 10 foot mounting height. Maximum calculated value = 12.8 fc
Type V - Short - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P633516
CATALOG NUMBER: GWS-SA2E-830-U-RW-W-GRSBK

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

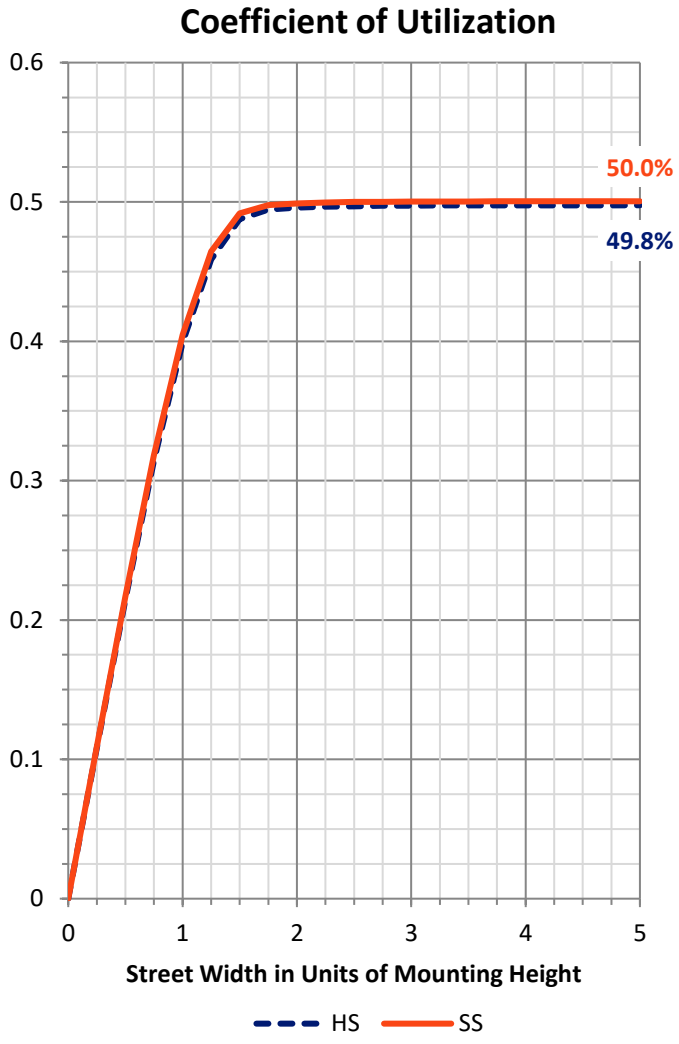
REPORT NUMBER: P633516
CATALOG NUMBER: GWS-SA2E-830-U-RW-W-GRSBK

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3756.1	0.0	3756.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3756.3	0.0	3756.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	7512.4	0.0	7512.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.2	1.4
10°-20°	362.1	4.8
20°-30°	732.6	9.8
30°-40°	1359.2	18.1
40°-50°	2256.3	30.0
50°-60°	2302.6	30.7
60°-70°	377.6	5.0
70°-80°	16.5	0.2
80°-90°	0.2	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	7512.4	100.0
0°-180°	7512.4	100.0



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

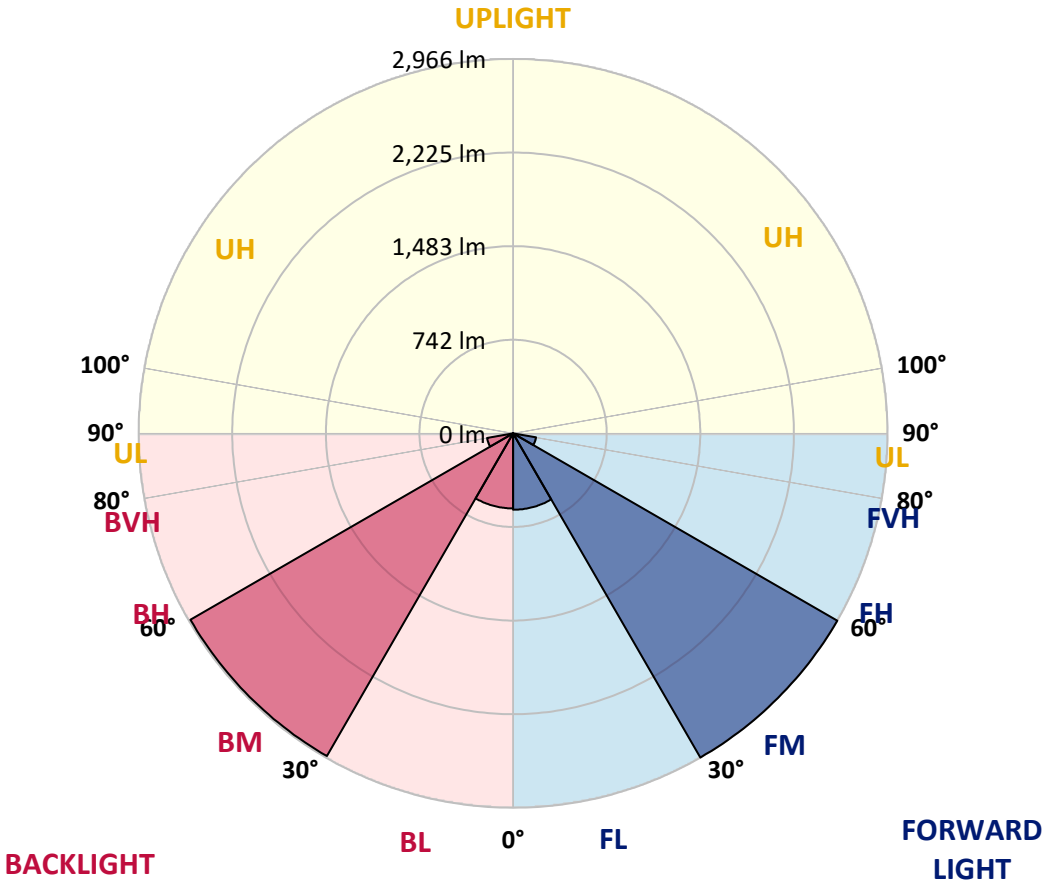
Scaled Data Report

REPORT NUMBER: P633516
CATALOG NUMBER: GWS-SA2E-830-U-RW-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	605.2	8.1			
FM	(30°-60°)	2966.3	39.5			
FH	(60°-80°)	184.7	2.5			G0/660
FVH	(80°-90°)	0.1	0.0			G0/10
BL	(0°-30°)	594.7	7.9	B2/1000		
BM	(30°-60°)	2951.8	39.3	B3/5000		
BH	(60°-80°)	209.4	2.8	B1/500		G0/660
BVH	(80°-90°)	0.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G0
Type V Short



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P633516
CATALOG NUMBER: GWS-SA2E-830-U-RW-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5
2.5°	1048.6	1051.1	1054.4	1057.7	1061.9	1066.0	1068.5	1076.0	1074.3	1081.0	1081.0
5°	1036.9	1039.4	1043.6	1051.1	1060.2	1069.4	1076.0	1091.0	1099.3	1112.6	1117.5
7.5°	1042.8	1046.1	1051.1	1062.7	1076.8	1091.0	1098.4	1122.5	1139.1	1164.1	1178.2
10°	1061.9	1065.2	1073.5	1093.4	1111.7	1131.7	1140.8	1171.6	1198.1	1232.2	1252.1
12.5°	1083.5	1087.6	1104.2	1134.2	1165.7	1192.3	1204.8	1238.9	1266.3	1304.5	1336.1
15°	1105.9	1112.6	1138.3	1182.4	1227.2	1262.9	1276.2	1312.8	1340.2	1380.9	1416.7
17.5°	1158.3	1165.7	1194.8	1242.2	1303.7	1345.2	1356.8	1395.1	1415.8	1443.2	1480.6
20°	1223.9	1238.0	1273.7	1331.1	1398.4	1438.3	1446.6	1484.0	1482.3	1493.9	1526.3
22.5°	1305.3	1315.3	1354.3	1422.5	1498.1	1542.1	1561.2	1577.0	1556.3	1546.3	1567.1
25°	1390.1	1401.7	1444.1	1518.9	1603.6	1654.3	1670.1	1682.5	1649.3	1611.9	1614.4
27.5°	1499.8	1508.1	1549.6	1629.4	1714.1	1771.5	1785.6	1807.2	1763.1	1703.3	1686.7
30°	1630.2	1638.5	1682.5	1766.5	1850.4	1899.4	1921.0	1947.6	1899.4	1824.6	1805.5
32.5°	1783.1	1791.4	1847.9	1934.3	2003.3	2056.4	2077.2	2105.5	2067.2	1983.3	1961.7
35°	1965.9	1970.9	2037.3	2131.2	2204.3	2255.9	2270.0	2303.2	2260.8	2176.9	2165.3
37.5°	2177.8	2183.6	2255.9	2364.7	2439.5	2496.8	2519.2	2528.4	2476.9	2383.0	2373.8
40°	2410.4	2429.5	2500.1	2617.3	2701.2	2773.5	2793.4	2762.7	2690.4	2562.5	2545.8
42.5°	2653.0	2669.6	2748.6	2875.7	2972.9	3046.9	3047.7	2981.2	2858.2	2681.3	2656.3
45°	2854.9	2861.6	2963.8	3091.7	3211.4	3263.7	3268.7	3148.2	2962.9	2750.2	2697.1
47.5°	2993.7	3004.5	3093.4	3216.4	3348.5	3395.8	3385.9	3235.5	3012.8	2795.1	2707.0
50°	2995.3	3013.6	3110.0	3228.8	3356.8	3414.1	3400.0	3260.4	3041.0	2796.8	2682.9
52.5°	2730.3	2760.2	2917.2	3089.2	3285.3	3383.4	3386.7	3292.8	3030.2	2770.2	2661.3
55°	2059.8	2092.2	2289.9	2583.2	2962.1	3235.5	3282.8	3254.6	3017.8	2781.8	2699.6
57.5°	1090.1	1065.2	1174.9	1465.7	1941.8	2425.4	2564.1	2790.1	2879.0	2795.9	2770.2
60°	237.6	253.4	337.3	454.5	757.8	1140.8	1276.2	1663.4	2123.7	2328.1	2476.0
62.5°	102.2	100.5	104.7	118.8	173.7	289.1	353.1	576.6	909.8	1249.7	1479.8
65°	83.9	84.8	88.1	88.1	82.3	83.1	87.2	132.1	212.7	298.3	400.5
67.5°	63.1	64.0	69.8	71.5	67.3	59.8	59.0	49.9	52.3	65.6	68.1
70°	39.9	39.9	43.2	44.9	44.9	41.5	40.7	35.7	34.9	39.9	44.9
72.5°	21.6	21.6	23.3	24.1	23.3	22.4	22.4	21.6	20.8	24.1	30.7
75°	9.1	9.1	10.0	10.0	9.1	9.1	9.1	9.1	9.1	10.8	16.6
77.5°	1.7	2.5	3.3	2.5	1.7	1.7	1.7	2.5	2.5	3.3	5.0
80°	0.8	0.8	1.7	0.8	0.0	0.0	0.0	0.0	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P633516
CATALOG NUMBER: GWS-SA2E-830-U-RW-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5	1068.5
2.5°	1086.8	1077.7	1081.0	1082.6	1080.2	1078.5	1069.4	1066.9	1062.7	1056.1	1054.4
5°	1123.4	1115.9	1115.0	1110.1	1098.4	1084.3	1066.9	1059.4	1051.1	1042.8	1041.1
7.5°	1184.8	1175.7	1169.9	1153.3	1126.7	1104.2	1075.2	1059.4	1048.6	1037.8	1035.3
10°	1263.8	1253.0	1236.4	1205.6	1169.9	1137.5	1103.4	1082.6	1066.0	1051.1	1050.2
12.5°	1347.7	1336.1	1306.2	1267.1	1223.9	1194.0	1150.8	1121.7	1096.8	1074.3	1071.8
15°	1435.8	1421.6	1380.9	1334.4	1294.5	1263.8	1216.4	1169.9	1131.7	1099.3	1095.9
17.5°	1503.1	1485.6	1437.4	1402.5	1370.1	1338.6	1285.4	1223.9	1173.2	1134.2	1125.0
20°	1545.4	1528.8	1483.1	1464.0	1449.1	1426.6	1363.5	1299.5	1243.0	1194.8	1186.5
22.5°	1586.2	1566.2	1526.3	1526.3	1538.0	1528.8	1460.7	1387.6	1321.1	1265.4	1253.0
25°	1631.9	1616.1	1587.8	1611.1	1640.2	1639.3	1569.5	1478.1	1401.7	1339.4	1326.9
27.5°	1698.3	1682.5	1672.6	1716.6	1753.2	1750.7	1674.2	1575.4	1494.8	1433.3	1421.6
30°	1815.5	1800.5	1789.7	1842.9	1889.4	1872.0	1788.1	1692.5	1611.1	1541.3	1533.0
32.5°	1971.7	1955.9	1941.8	1995.0	2036.5	2014.1	1934.3	1844.6	1750.7	1682.5	1665.9
35°	2176.9	2143.7	2129.6	2192.7	2210.2	2185.2	2108.8	2029.9	1930.1	1852.0	1841.2
37.5°	2388.8	2349.7	2339.8	2394.6	2422.9	2413.7	2324.0	2241.7	2133.7	2047.3	2034.8
40°	2569.9	2534.2	2516.8	2602.3	2666.3	2672.1	2591.5	2491.0	2363.9	2274.1	2251.7
42.5°	2676.3	2645.5	2641.4	2774.3	2879.0	2953.8	2857.4	2753.6	2619.8	2518.4	2500.1
45°	2700.4	2680.4	2715.3	2889.8	3052.7	3188.9	3106.7	2997.0	2852.4	2745.2	2727.8
47.5°	2697.9	2691.2	2753.6	2949.6	3155.7	3323.5	3282.8	3159.0	3019.4	2907.3	2890.7
50°	*2662.2*	*2663.0*	*2766.9*	*2979.6*	*3197.3*	*3360.1*	*3319.4*	*3204.7*	*3080.1*	*2969.6*	*2956.3*
52.5°	2648.0	2643.1	2741.9	2970.4	3239.6	3343.5	3252.1	3123.3	2984.5	2848.3	2828.3
55°	2697.9	2685.4	2745.2	2962.9	3244.6	3334.3	3093.4	2814.2	2530.0	2368.9	2355.6
57.5°	2772.7	2759.4	2787.6	2908.1	2984.5	2772.7	2276.6	1826.3	1533.8	1410.0	1356.0
60°	2476.0	2466.9	2445.3	2299.9	1972.5	1488.1	1013.7	646.4	464.5	375.6	375.6
62.5°	1536.3	1523.8	1406.7	1045.3	759.4	439.5	241.8	151.2	114.7	107.2	106.4
65°	431.2	428.7	354.8	250.9	159.5	98.9	87.2	88.9	87.2	84.8	83.9
67.5°	64.8	71.5	71.5	58.2	55.7	62.3	73.1	78.1	73.9	69.8	68.1
70°	41.5	44.9	43.2	37.4	39.9	46.5	52.3	53.2	50.7	46.5	45.7
72.5°	29.1	32.4	26.6	24.1	24.9	27.4	29.9	29.9	29.1	27.4	25.8
75°	17.4	17.4	12.5	11.6	11.6	12.5	12.5	14.1	14.1	13.3	12.5
77.5°	5.8	6.6	4.2	3.3	3.3	3.3	4.2	5.0	5.0	4.2	3.3
80°	0.8	1.7	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	0.8
82.5°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

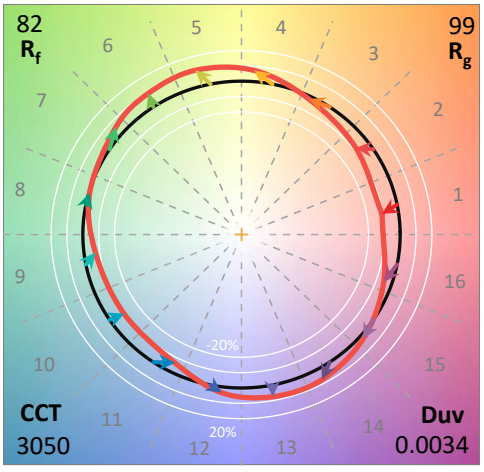
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

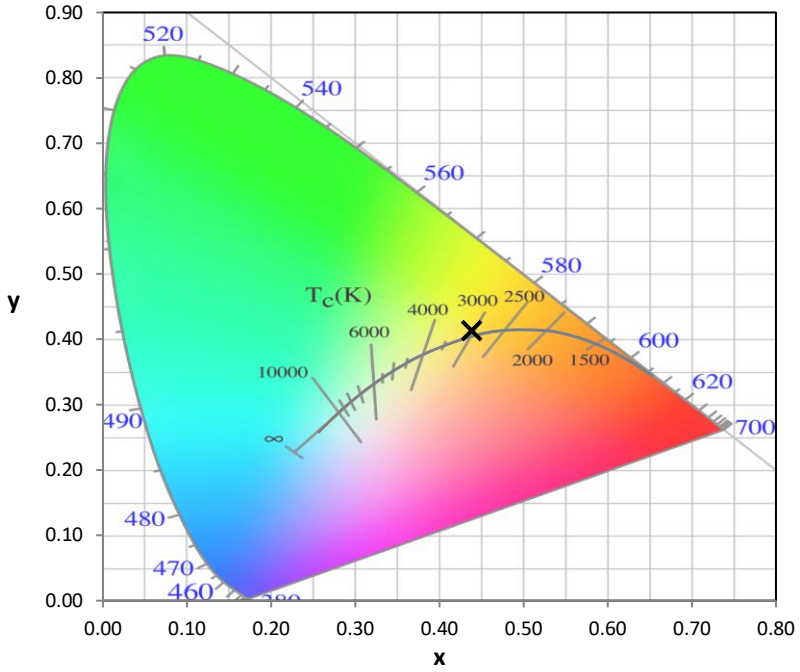
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

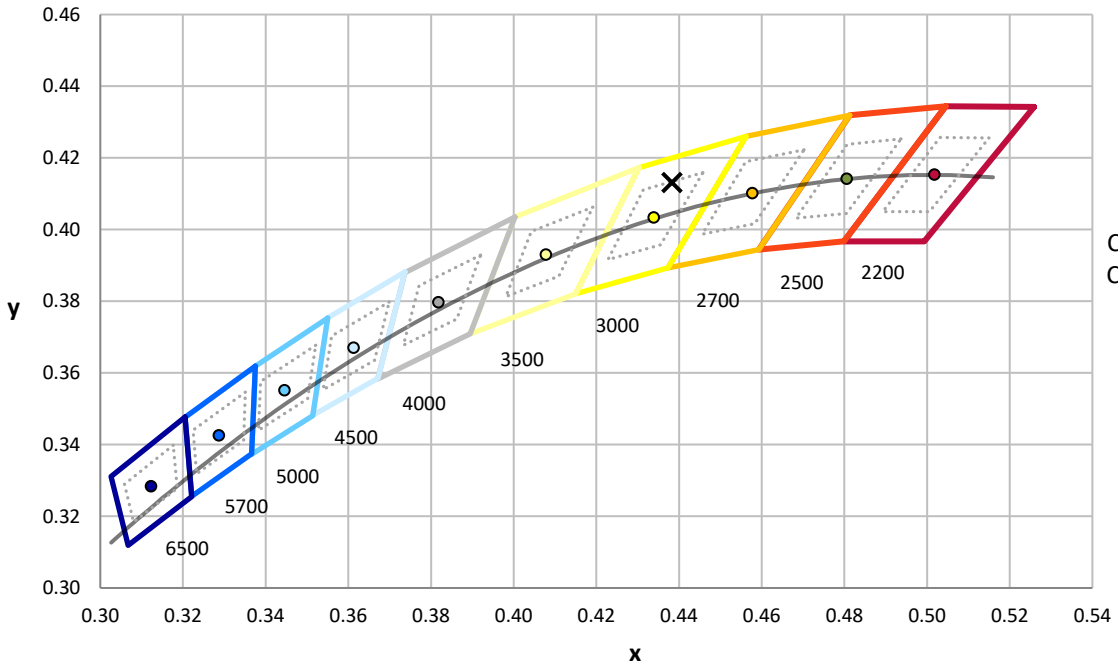
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

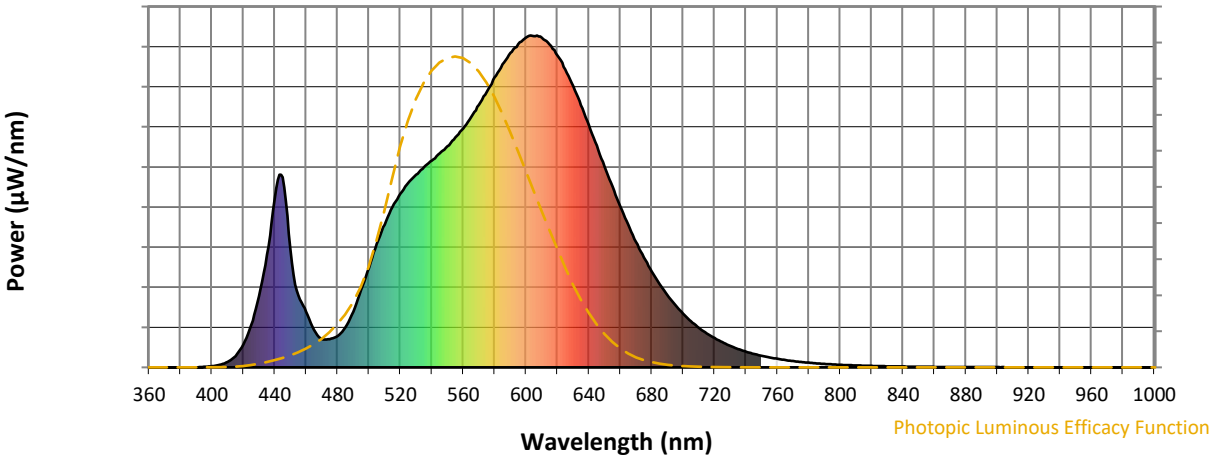


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

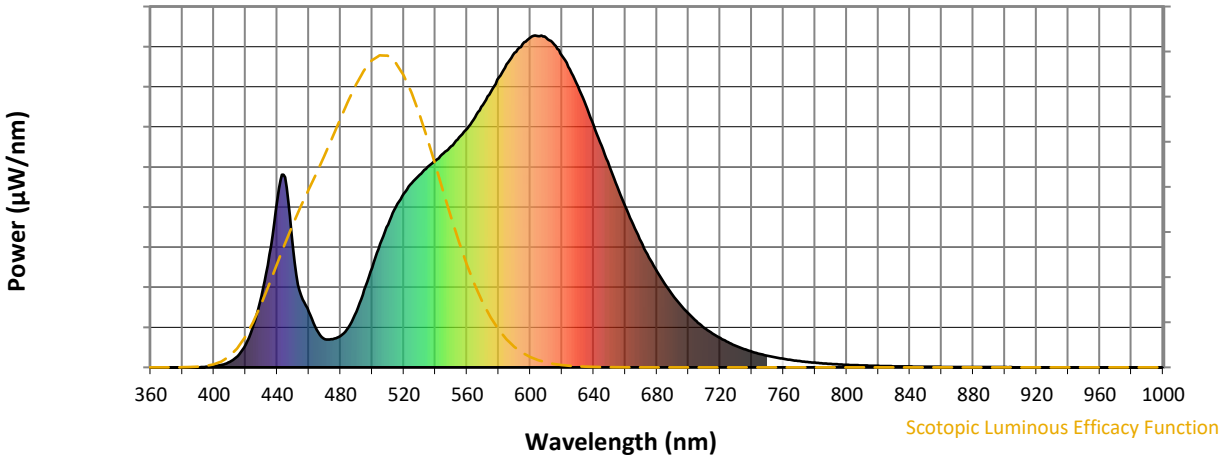


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

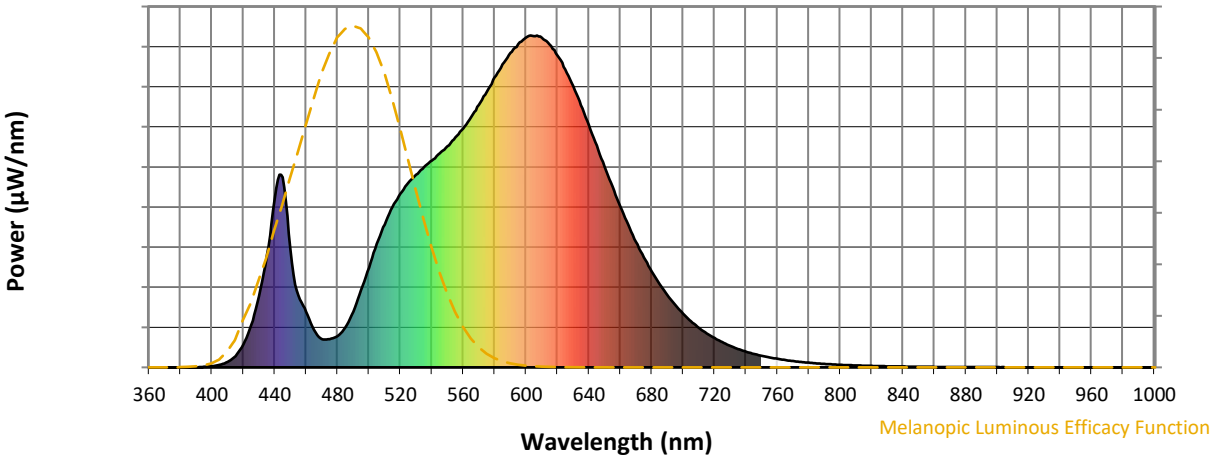


Scotopic Lumens: NR **S/P: 1.27**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

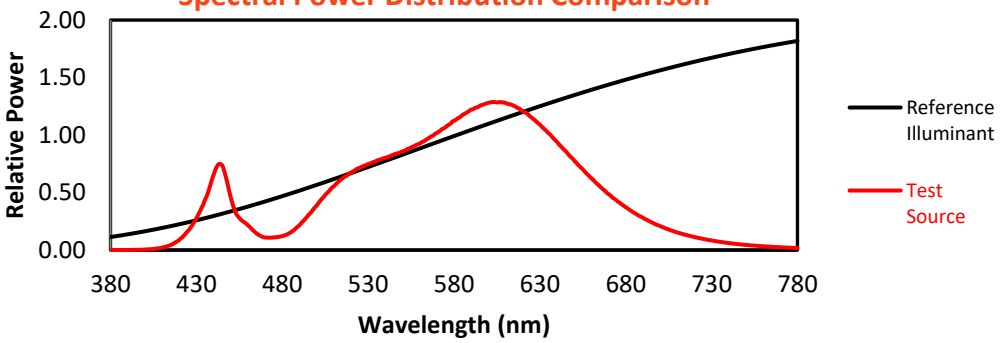
REPORT NUMBER: SP1-2408-195-9

TM-30-18

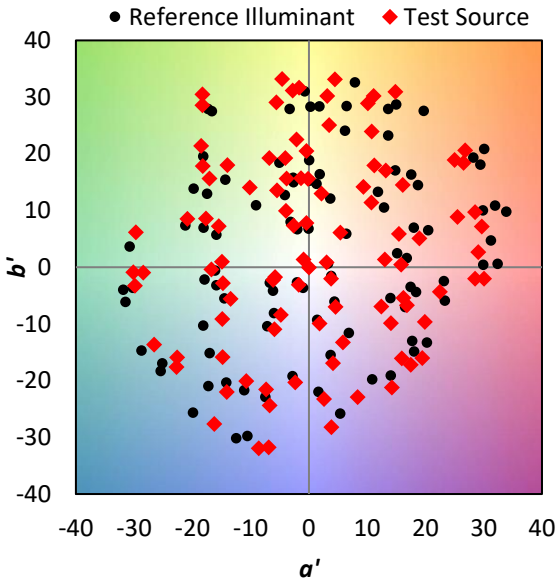
Summary

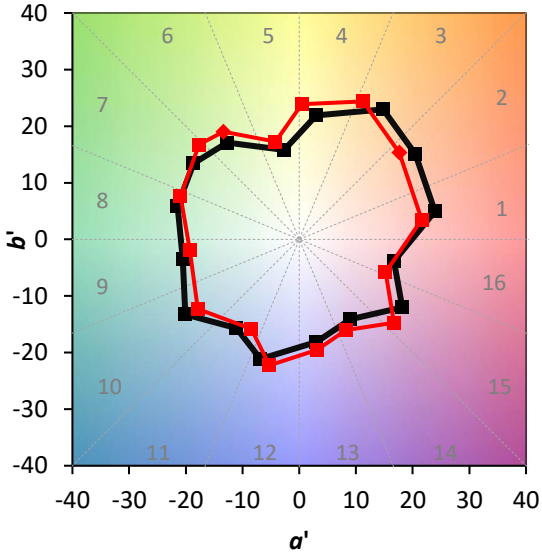
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

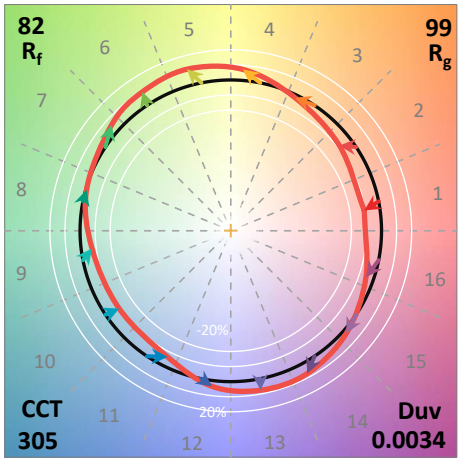
Spectral Power Distribution Comparison

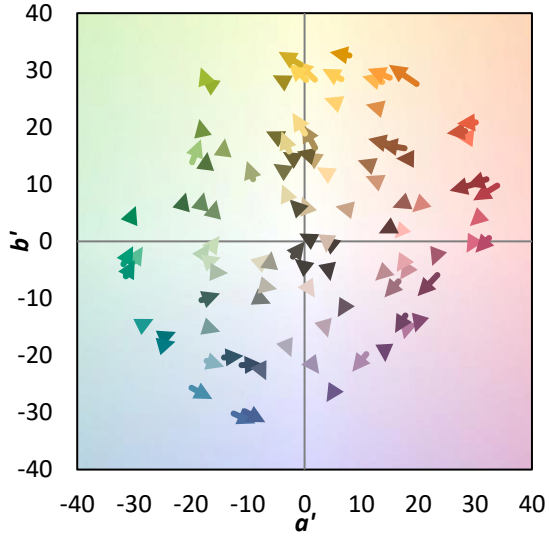


Color Vector Graphics







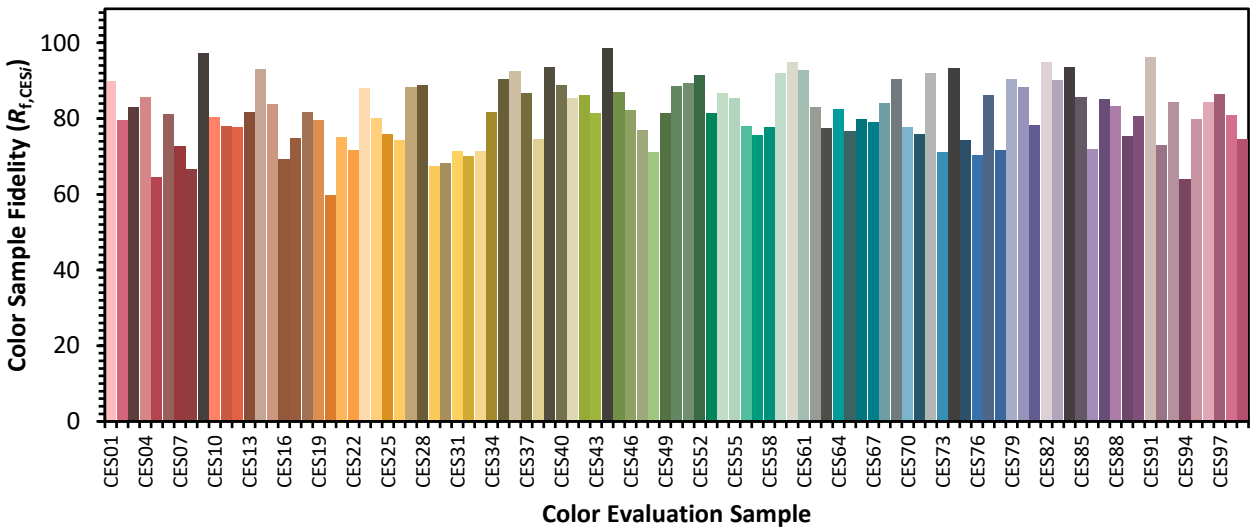


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Individual Sample Fidelity Index ($R_{f,i}$)

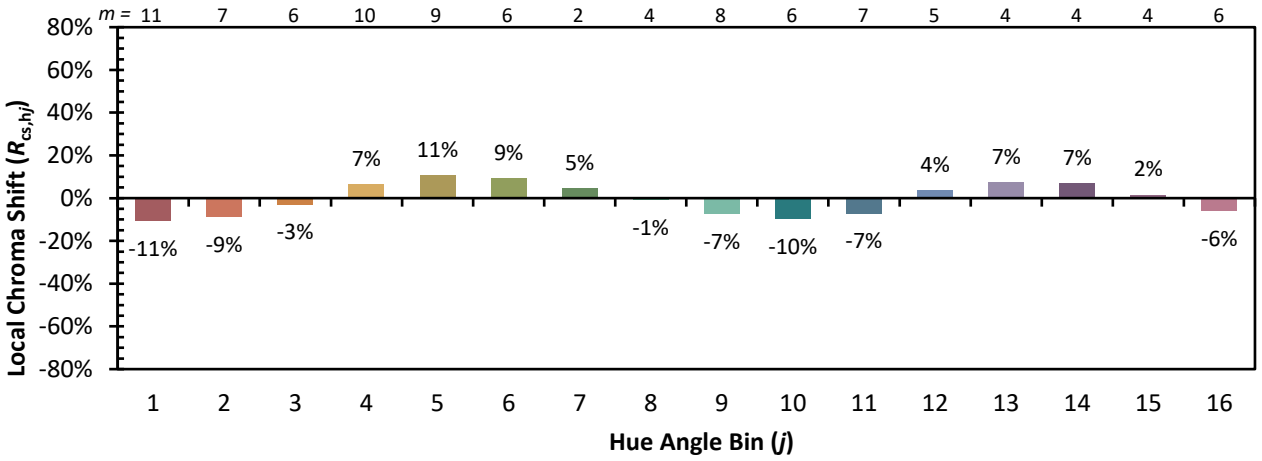
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	

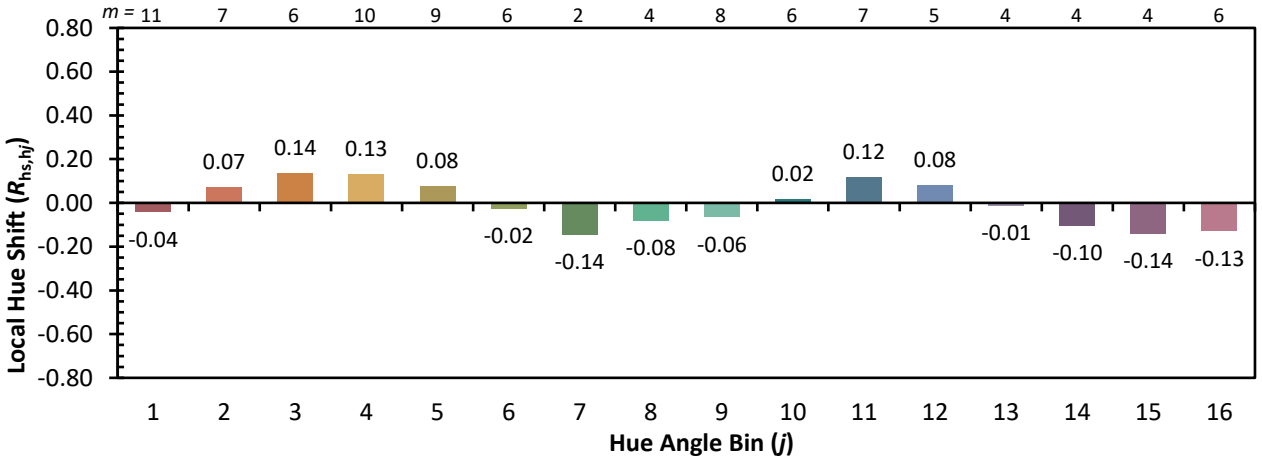


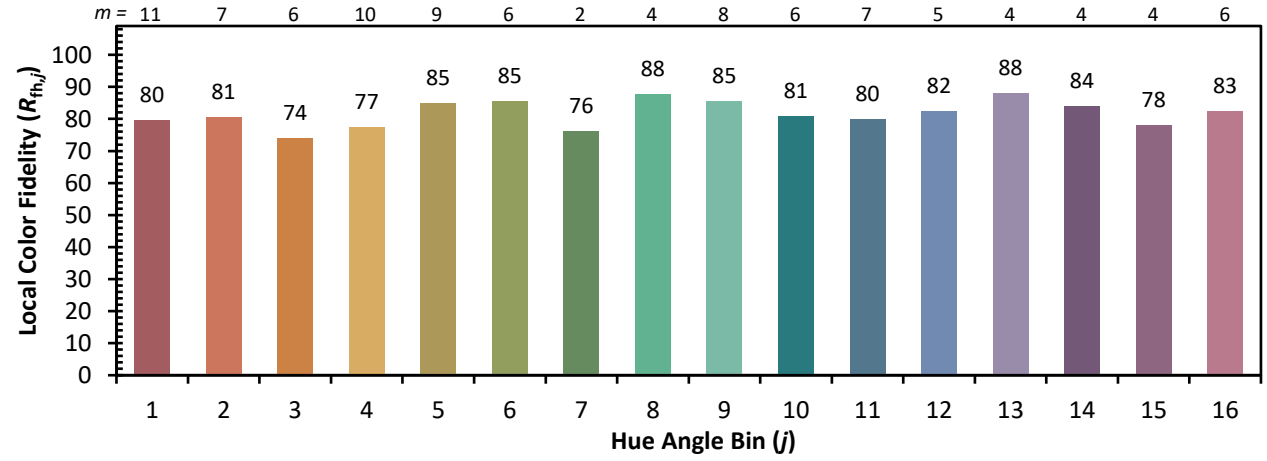
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



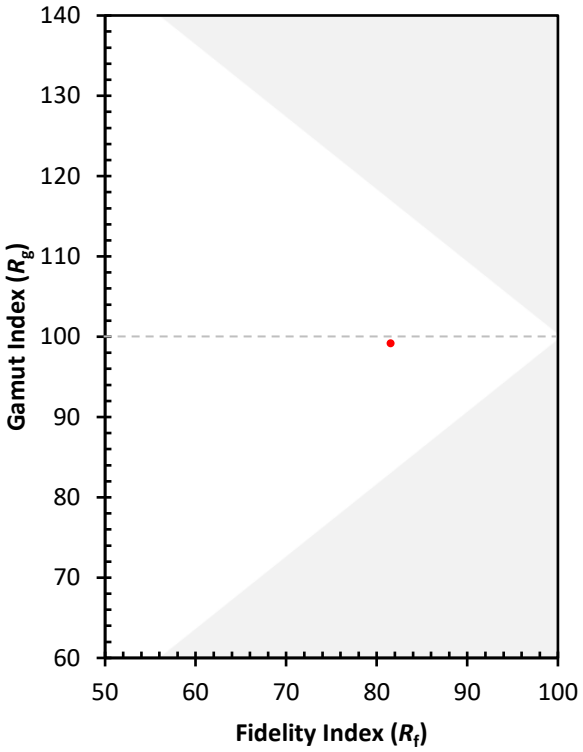


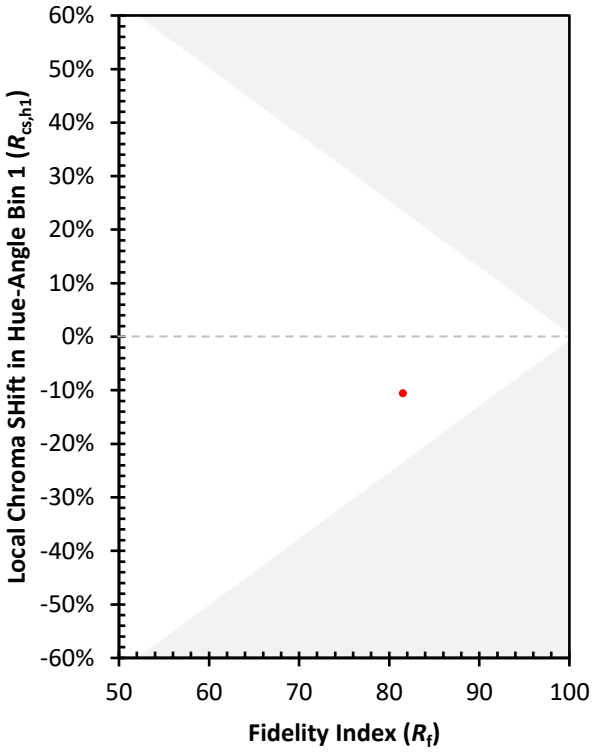


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)